

**WHAT IS CLAIMED IS:**

1. A method for utilizing shared resources in a computerized system, with the aid of a processor for processing commands to be executed using one or more of said shared resources, the method comprising steps of :

- deriving, from each of said commands, subcommands respectively related to said one or more shared resources,
- assigning priorities to said subcommands,
- forwarding said subcommands to one or more queues of the respective one or more shared resources, so that each of said queues comprising the subcommands related to a particular shared resource,

thereby ensuring execution of the subcommands from said queues by said shared resources in an asynchronous manner, and according to said subcommand priorities by each of the shared resources.

2. The method according to Claim 1, further comprising a step of assigning different command priorities to said commands, wherein the command priorities set an order of their urgency.

3. The method according to Claim 2, wherein the step of assigning priorities to said subcommands comprises assigning to them the priority equal to that of the command from which the subcommands are derived.

4. The method according to Claim 1, wherein the step of assigning priorities to said subcommands comprises defining one group of the subcommands as critical subcommands having higher priorities, and another group of the subcommands as non-critical commands with lower priorities.

5. The method according to Claim 4, wherein the step of assigning priorities to the subcommands comprises assigning to each subcommand a combined priority; the combined priority being determined based on the subcommand's priority in the command and the priority of said command.

6. The method according to Claim 1, further comprising steps of:

- in each of the shared resources, upon executing the subcommands from the subcommand queue according to the subcommand priorities, obtaining respective responses and outputting thereof into a response queue of the shared resource;
- forwarding each of the responses from the response queues to the command from which the corresponding subcommand was derived, for further creating reports relating to said commands.

7. The method according to Claim 6, further comprising a step of issuing a critical part report from a particular command before completing its execution, but upon receiving by the command of one or more said responses concerning the respective subcommands having high priority, to initiate urgent execution of another command or operation.

8. A control system for utilizing shared resources, the control system comprising one or more command processors for processing commands, each being capable of cooperating with one or more said shared resources;

each of said command processors being operative to:

- derive, from each said command, subcommands respectively related to said one or more shared resources,

- assign priorities to said subcommands,
- forward said subcommands to the respective shared resources for execution,
- receive from said shared resources responses to the respective subcommands, and
- based on responses to said subcommands, form reports to the respective commands.

9. The control system according to Claim 8, further comprising a higher level processor capable of cooperating with said command processors;

said higher level processor being operative to distribute the commands between said command processors, and receive from said command processors reports to respective commands.

10. The control system according to Claim 9, wherein the higher level processor is operative to sort the commands by priorities between said command processors.

11. The control system according to Claim 8, wherein said command processors are capable of dividing said subcommands into critical subcommands having higher priorities, and non-critical commands having lower priorities.

12. The control system according to Claim 11, wherein at least one of said command processors is capable of issuing a critical part report based on one or more response to the critical subcommands of a particular command, said

critical part report being issued before the particular command is completely executed.

13. The control system according to Claims 8, additionally comprising one or more input memory buffers respectively associated with said one or more of the shared resources, for gathering and queuing subcommands to be input to the shared resource, and

one or more output memory buffers for queuing responses when outputted from the respective shared resources.

14. The control system according to Claim 13, wherein said input memory buffers are capable of sorting the subcommands in the queue so that the first subcommand to be read from the queue is always that having the highest priority in the queue.

15. The control system according to Claim 8, being a system for controlling a telecommunication network.

16. A computerized system with shared resources, comprising the control system according to Claim 8.